CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method for providing film grain information comprising the steps of:

characterizing an <u>input</u> image information stream <u>in accordance with the difference</u> <u>between the input image stream and a filtered input image stream</u> to provide information indicative of film grain within the image stream, the film grain information including at least one parameter among a set of possible parameters specifying different attributes of the film grain in the image stream;

encoding the film grain information for subsequent transmission.

2. (Previously presented) A method for providing film grain information comprising the steps of:

characterizing an image information stream to provide information indicative of film grain within the image stream, the film grain information including at least one parameter among a set of possible parameters specifying different attributes of the film grain in the image stream; and

encoding the film grain information for subsequent transmission;

wherein the set of parameters includes a plurality of correlation parameters and a plurality of intensity-independent parameters.

3. (Original) The method according to claim 2 wherein at least one correlation parameter defines a spatial correlation in a perceived pattern of film grain.

4. (Original) The method according to claim 2 wherein at least one correlation parameter defines a correlation between color layers.

5. (Original) The method according to claim 2 wherein at least one correlation parameter defines a temporal correlation resulting from previous processing the image sequence.

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6. (Original)   The method according to claim 2 wherein at least one intensity-independent parameters defines an aspect ratio of the film grain.

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7. (Original)   The method according to claim 1 wherein at least one parameter defines intensity of a random component of the film grain.

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8. (Original)   The method according to claim 2 wherein at least one of the intensity-independent parameters defines a color space and blending mode operation used to merge the simulated film grain with the image.

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9. (Original)   The method according to claim 1 further comprising the step of transmitting the film grain information transmitted out-of band with respected to transmission of image representative information.

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10. (Original)   The method according to claim 1 further comprising the step of transmitting the film grain information transmitted in band with respected to transmission of image representative information.

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11. (Original) The method in accordance with claim 2 where the set of parameters are computed in accordance with a second order auto regression representation of the spatial correlation and a first order regression representation of the cross-color and temporal correlations.

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12. (Original) The method according to claim 3 wherein the at least one parameter describing the spatial correlation of the grain is established in accordance with a spatial convolution model.

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13. (Original) The method according to claim 3 wherein the at least one parameter describing the spatial correlation of the grain is obtained from cut frequencies of a filter in the Fourier domain.

1 14 (Original)   The method according to claim 1 wherein the encoding step comprises
2 encoding the film grain information according to the ITU-T H.264 video coding standard.

1 15. (Currently amended)   Apparatus for providing film grain, comprising:
2   first means for characterizing an <u>input</u> image information stream <u>in accordance with the</u>
3 <u>difference between the input image stream and a filtered input image stream</u>
4 to provide information of film grain within the image stream, the information including at least
5 one parameter among a set of possible parameters specifying different attributes of the film grain
6 in the image stream;
7   second means encoding the film grain information for subsequent transmission.

1 16. (Previously presented)   Apparatus for providing film grain, comprising:
2   first means for characterizing an image information stream to provide information of film
3 grain within the image stream, the information including at least one parameter among a set of
4 possible parameters specifying different attributes of the film grain in the image stream;
5   second means encoding the film grain information for subsequent transmission; and
6   wherein the set of parameters includes a plurality of correlation parameters and a plurality
7 of intensity-independent parameters.

1 17. (Original) The apparatus according to claim 16 wherein at least one correlation
2 parameter defines a spatial correlation in a perceived pattern of film grain.

1 18. (Original) The apparatus according to claim 16 wherein at least one correlation
2 parameter defines a correlation between color layers.

1 19. (Original) The apparatus according to claim 16 wherein at least one correlation
2 parameter defines a temporal correlation resulting from previous processing the image sequence.

1 20. (Original) The apparatus according to claim 16 wherein at least one intensity-
2 independent parameters defines an aspect ratio of the film grain.

1 21. (Original) The apparatus according to claim 15 wherein at least one parameter defines
2 intensity of a random component of the film grain.

1 22. (Original) The apparatus according to claim 16 wherein at least one of the intensity-
2 independent parameters defines a color space and blending mode operation used to merge the
3 simulated film grain with the image.

1 23. (Original) The apparatus in accordance with claim 16 wherein the first mean
2 computes the set of parameters in accordance with a second order auto regression representation
3 of the spatial correlation and a first order regression representation of the cross-color and
4 temporal correlations.

1 24. (Original) The apparatus according to claim 17 wherein the at least one parameter
2 describing the spatial correlation of the grain is established in accordance with a spatial
3 convolution model.

1 25. (Original) The method according to claim 17 wherein the at least one parameter
2 describing the spatial correlation of the grain is obtained from cut frequencies of a filter in the
3 Fourier domain.
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1 26. (Original) The apparatus according to claim 15 wherein second means encodes the
2 film grain information according to the ITU-T H.264 video coding standard.